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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/732,897

12/09/2003

Andrew M.K. Pennell

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EXAMINER

BERNHARDT, EMILY B

ART UNIT

PAPER NUMBER

1624

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/732,897

Applicant(s)

PENNELL ET AL.

Examiner

Emily Bernhardt

Art Unit

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 54-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's election without traverse of Group I in the reply filed on 3/2/06 is acknowledged.

The disclosure is objected to because of the following informalities: In the parent history on p.1, it is not necessary to recite the nonprovisional case from which the provisional case arose. Note MPEP 1302.04 for suggested formats for parent histories.

Appropriate correction is required.

Claims 1-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. In the definition for L¹ it should be made clear that hydrogen is present on the linking atoms when **not** optionally substituted. This is consistent with the dependent claims which contemplate hydrogen on linking chains.

2. Other than the N atom nature of remaining ring members in Rc/Rd and Rf/Rg rings is not set forth in the claims and specification provides no guidance as far as the examiner can determine except for 1 eg of a morpholino ring on phenyl ring. See eg. 1.227. Note In re Wiggins 179 USPQ 421 regarding such terminology .

3. Claims 8-11,14-17 and 51-52 are incomplete as recited since they do particularly point out the invention by reciting intended subject matter so that one reading the claims can ascertain its scope but rather resorts to Figures in the specification which is improper. Note reliance on the specification to define claimed subject matter is permitted only under certain circumstances as discussed in Ex parte Fressola 27 USPQ 2d 1608.

Claims 1-16 and 18-53 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for subject matter embraced by claim 17, does not reasonably provide enablement for scope of substituents permitted on elected Ar¹ and HAr rings as well as L and R¹ variables. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The broadest claims read on any point of attachment of HAr ring to L¹ yet pyrazole species are always attached via N ring atom. The same applies to benzopyrazole species. Additionally, substituents permitted on both Ar¹ and HAr rings cover a wide array of functional groups including aryl and hetero rings which in turn can be all further substituted. The same applies to the scope of L¹ which reads on alkanoyl as well as alkenyl,alkynyl,imino,oxy,thio links with

further substitution thereon. R¹ can be present up to 8 times on the elected core which can result in persubstituted piperazines having vicinal/geminal polar groups thereon. While compounds directed to the elected invention have been made and assayed these are consistently of the structure having halo, phenyl (with substituents halo or alkoxy thereon), haloalkyl on HAr ring and to a much lesser extent, thienyl, aminoalkyl, ureidoalkyl or nitro. The Ar¹ ring is always phenyl with mainly halo, alkoxy and haloalkyl on Ar¹ ring and with one example each of methylthio, morpholinoalkoxy and oxazolyl. R¹ scope is represented by the list embraced in claim 17. There is no reasonable assurance as to what other groups will work. Note In re Surrey 151 USPQ 724 regarding sufficiency of disclosure for a Markush group where as herein no examples of a diverse nature have been made much less tested showing the requisite activity needed to practice the invention. Also see MPEP 2164.03 for enablement requirements in cases directed to structure-sensitive arts such as the pharmaceutical art.

Also note the criteria for enablement as set out in In re Wands cited in MPEP 2164.01(a), August 2000 edition, which includes factors such as:

- 1) Breadth of the claims- the claims cover compounds easily in the millions as pointed out above;

2) Level of unpredictability in the art- the invention is pharmaceutical in nature. It is well established that “the scope of enablement varies inversely with the degree of unpredictability of the factors involved” and physiological activity is generally considered to be unpredictable. See *In re Fisher* 166 USPQ 18;

3) Direction or guidance- as stated above the compounds made are not representative of the instant scope but are closer to each other than to remaining scope;

4) State of the prior art- The compounds are piperazine derivatives with a variety of (un)substituted rings permitted at both 1- and 4-positions and on all ring carbons with linking chains connecting HAr to the piperazine. While there are many compounds that read on the instant claims as noted in applicants’ international search report provided in parent, no such elected compounds of the scope claimed are known in the prior art having the instant activity as CCR1 antagonists. Note the art applied below which shows for a variety of compounds embraced a variety of uses;

5) Working examples- No absolute test data has been presented but only a range reported for compounds actually made and thus no clear evaluation of which functional groups at various positions out of the many claimed might affect

potency to a large or small degree or what threshold value constitutes acceptable activity for further testing.

In view of the above considerations, this rejection is being applied.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Vovk (ref.77 cited by applicants in parent). The journal article published in December, 2001 and describes a compound within the instant scope as depicted on 1st page of the computer readout provided by applicants. Said compound was retrieved from a chemical synthesis.

It is recognized that applicants are claiming benefit under 35 USC 119(e) which date precedes Vovk. However benefit is not accorded the instant claims as the subject matter covered by these claims is not completely described in the provisional case much less enabled. In fact the provisional case is much of a much narrower disclosure than claimed herein. Note MPEP 201.11 for right of benefit.

Thus only the instant filing date is accorded the claims and Vovk is appropriately applied under 35 USC 102(b).

Claims 1,2,4,12 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Nicolai (ref.89 provided by applicants in parent). Nicolai describes several compounds within the instant scope for use in a pharmaceutical setting (i.e. for testing for angiotensin antagonistic activity). See examples 53,56 and 60. Note that the tetrazolyl-biphenylmethyl substituent is covered by R^h as arylalkyl which in turn on the phenyl portion can be further substituted with R^h, which also includes phenyl as a choice and which can be further substituted with heteroaryl.

Claims 1 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Bebernitz (ref.72 cited by applicants in parent). Bebernitz describes a compound within the instant scope for use in treating diabetes. See compound 12f on p.2607. Bebernitz is applied under 102(b) for the same reason discussed above in the Vovk rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2,4-8,10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bebernitz. While species in these claims are not anticipated by Bebernitz, closest compound in these claims can have a methyl group on phenyl ring at instant Ar¹. Note that H vs Me on carbon atoms is not deemed a patentable distinction absent evidence of superior, unexpected results. See *In re Wood* 199 USPQ 137; *In re Lohr* 137 USPQ 548 regarding the addition of a methyl group to known compounds. Thus it would have been obvious at the time the invention was made to expect instant compounds to possess the utility taught by the applied art in view of the close structural similarity outlined above.

Claims 1-4,12 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukami (US'246). Fukami which issued more than a year earlier than applicants' earliest priority date describes species within the instant scope for uses based on NPY receptor antagonistic activity. See piperazino species in col.6 last two lines and throughout col.7. Note "-C(O)-N-" is covered by L¹.

The additional art cited by the examiner discloses the source of the 1st two provisoed out compounds in claim 1. The 3rd and 4th excluded compounds were indicated as available through various catalogs cited in refs.94-95 of parent. It is assumed applicants will supply a 1449 as done in parent for consideration in the present case. If not these references will be made of record by the examiner.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to

prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-53 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/460752 (recently allowed). Although the conflicting claims are not identical, they are not patentably distinct from each other because they embrace overlapping subject matter to a large degree as the instant case is a CIP of said case.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

WO'853 which corresponds to parent is not a competent reference as it was published after applicants' filing date and has the same inventive entity as herein.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Bernhardt whose telephone number is 571-272-0664.

If attempts to reach the examiner by telephone are unsuccessful, the acting supervisor for AU 1624, James O. Wilson can be reached at 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



Emily Bernhardt
Primary Examiner
Art Unit 1624